

Power Pentode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC)	6.3	volts
Current	0.76	amp

Direct Interelectrode Capacitances (Approx.):^a

Grid No.1 to plate	0.5	μmf
Grid No.1 to cathode & grid No.3, grid No.2, and heater	10.8	μmf
Plate to cathode & grid No.3, grid No.2, and heater	6.5	μmf
Grid No.1 to heater	0.25	μmf

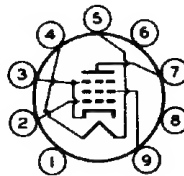
Characteristics, Class A₁ Amplifier:

Plate Voltage	250	volts
Grid-No.2 Voltage	250	volts
Grid-No.1 Voltage	-7.3	volts
Mu-Factor, Grid No.2 to Grid No.1	19.5	
Plate Resistance (Approx.)	40000	ohms
Transconductance	11300	μmhos
Plate Current	48	ma
Grid-No.2 Current	5.5	ma

Mechanical:

Operating Position	Any
Maximum Overall Length	3-1/16"
Maximum Seated Length	2-13/16"
Length, Base Seat to Bulb Top (Excluding tip)	2-7/16" \pm 3/32"
Diameter	0.750" to 0.875"
Dimensional Outline	See General Section
Bulb	T6-1/2
Base	Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW	9CV

Pin 1—Internal Con-
nection—
Do Not Use
Pin 2—Grid No.1
Pin 3—Cathode,
Grid No.3



Pin 4—Heater
Pin 5—Heater
Pin 6—Same as Pin 1
Pin 7—Plate
Pin 8—Same as Pin 1
Pin 9—Grid No.2

PUSH-PULL AF POWER AMPLIFIER — Class AB₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	400 max.	volts
GRID-No.2 (SCREEN-GRID) VOLTAGE	300 max.	volts
CATHODE CURRENT	65 max.	ma
PLATE DISSIPATION	12 max.	watts
ZERO-SIGNAL GRID-No.2 INPUT	2 max.	watts



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MAX.-SIGNAL GRID-No.2 INPUT.	4 max.	watts	
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode. .	100 max.	volts	—
Heater positive with respect to cathode. .	100 max.	volts	

Typical Operation:

Values are for 2 tubes

Plate Voltage.	400	volts	
Grid-No.2 Voltage.	300	volts	
Grid-No.1 Voltage.	-15	volts	—
Peak AF Grid-No.1 Voltage.	14.8	volts	
Zero-Signal Plate Current.	15	ma	
Max.-Signal Plate Current.	105	ma	
Zero-Signal Grid-No.2 Current.	1.6	ma	
Max.-Signal Grid-No.2 Current.	25	ma	
Effective Load Resistance (Plate to plate)	8000	ohms	—
Total Harmonic Distortion.	4	%	
Max.-Signal Power Output	24	watts	

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:			
For fixed-bias operation	0.3 max.	megohm	

PUSH-PULL AF POWER AMPLIFIER — Class AB₁

*Grid No.2 of each tube connected to tap
on plate winding of output transformer*

Maximum Ratings, Design-Center Values:

→ PLATE AND GRID-No.2 (SCREEN-GRID)			
SUPPLY VOLTAGE	375 max.	volts	
CATHODE CURRENT.	65 max.	ma	
PLATE DISSIPATION.	12 max.	watts	
ZERO-SIGNAL GRID-No.2 INPUT.	2 max.	watts	
MAX.-SIGNAL GRID-No.2 INPUT.	4 max.	watts	
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode. .	100 max.	volts	—
Heater positive with respect to cathode. .	100 max.	volts	

Typical Operation:

Values are for 2 tubes

Plate Supply Voltage	375	volts	
Grid-No.2 Supply Voltage	300	volts	
Cathode Resistor	220	ohms	—
Peak AF Grid-No.1 Voltage.	17.7	volts	
→ Zero-Signal Cathode Current.	70	ma	
→ Max.-Signal Cathode Current.	81	ma	
Effective Load Resistance (Plate to plate)	11000	ohms	
Total Harmonic Distortion.	3	%	
Max.-Signal Power Output	16.5	watts	—

→ Indicates a change.



Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For cathode-bias operation. 1 max. megohm

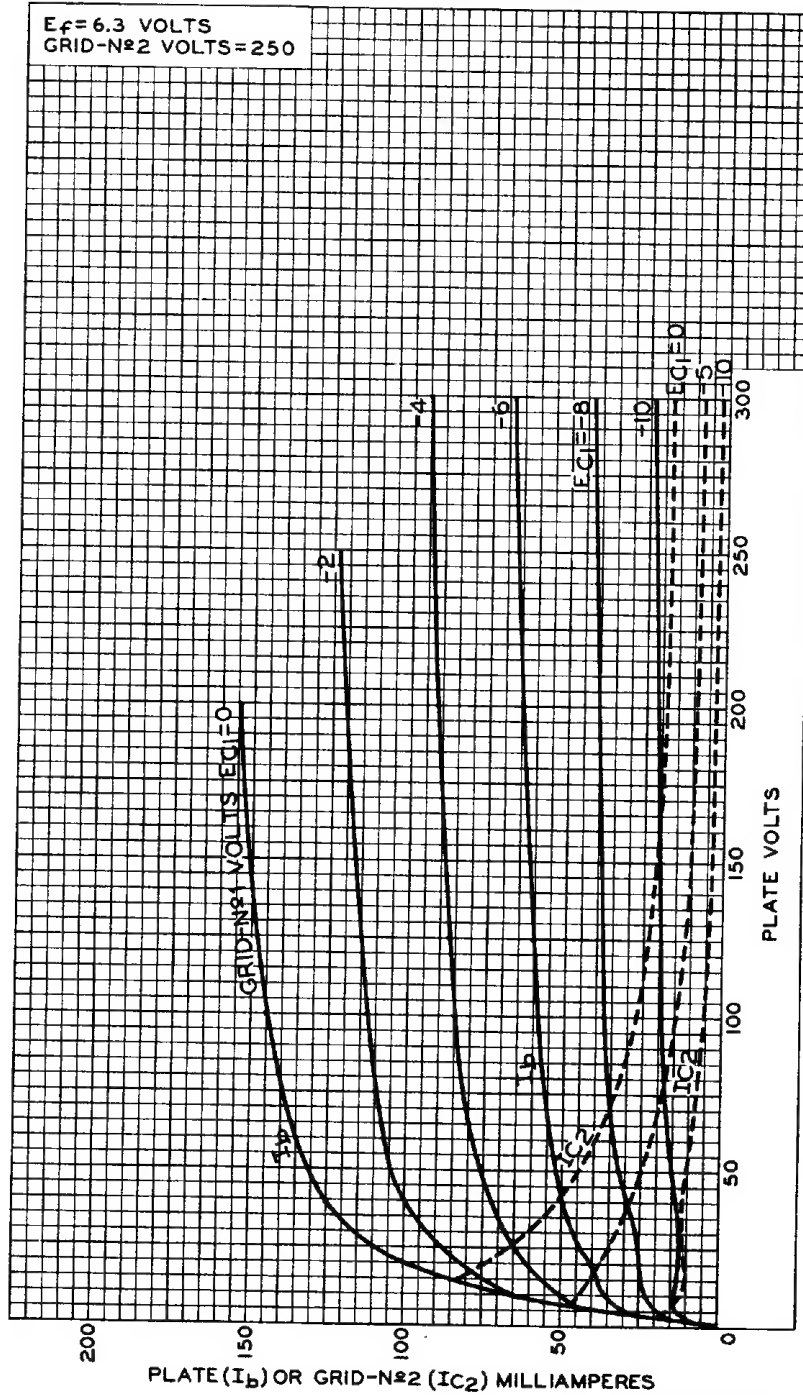
^a without external shield.

^b obtained from taps on the primary winding of the output transformer.
The taps are located on each side of the center-tap (B+) so as to supply 43 per cent of the plate signal voltage to grid No.2 of each output tube.



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AVERAGE CHARACTERISTICS

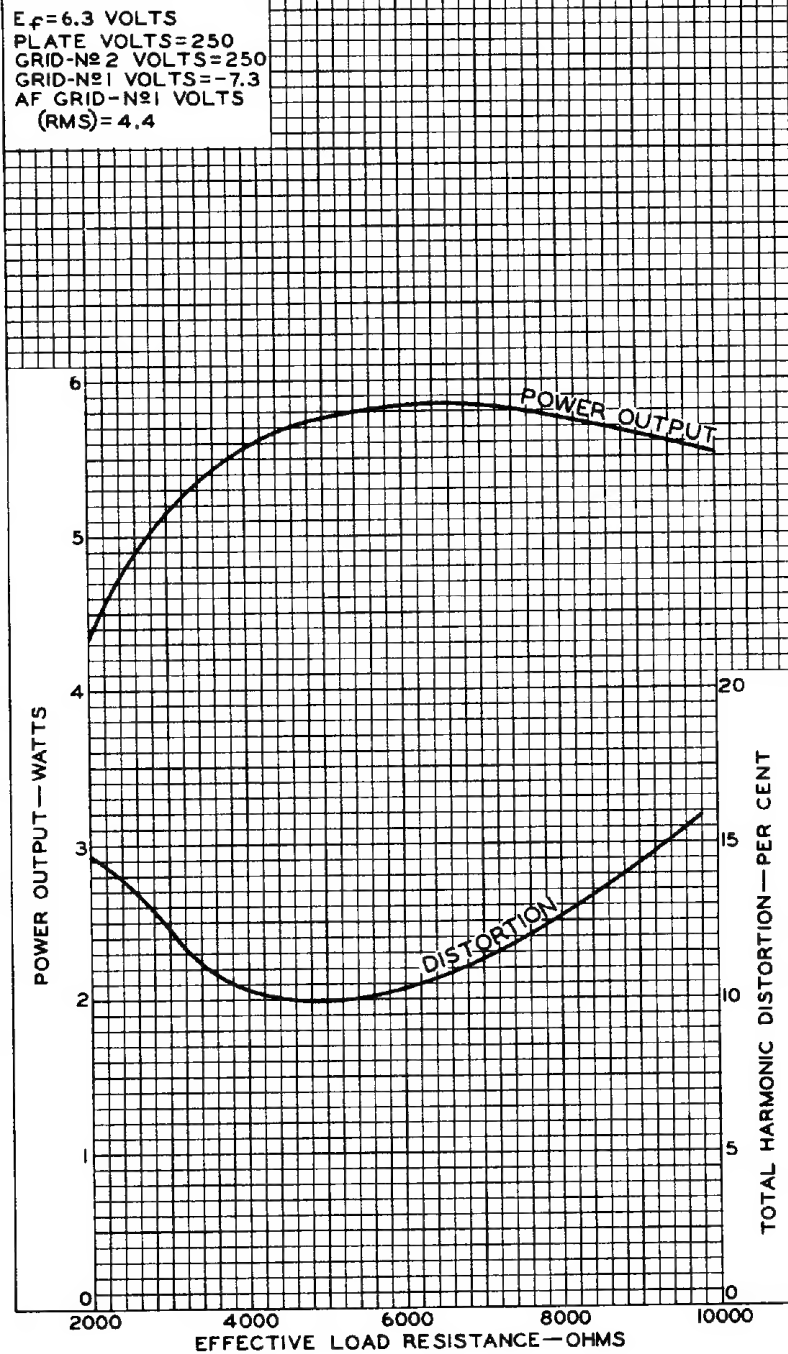


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OPERATION CHARACTERISTICS



92CM-9902



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